The BradControl™ IP65 I/O modules with M12 connections provide a reliable solution for industrial environments.

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AS-Interface® Analog I/O Modules

Features

- **Compliance with AS-Interface® specification 2.1**
- **Flat cable network connection**
- **Compact design, easy to mount**
- **IP65 protection**
- **Actuator / Sensor connection via standard M12 Connector**
- **Galvanic Isolation to AS-Interface®**
- **Profile 7.3 "Plug and Play"**
- **With infrared interface for slave programming**

Common AS-i Advantages

- **Less installation effort required.** Single flat cable used for both power and data transmission.
- **Simple and inexpensive bus interface.** Protocol specific ASICs implemented.
- **Deterministic system behavior**. Cyclic polling with a 10 ms maximum cycle time (150 µsec per slave).
- **Configuration software not required.** Automatic address mode.
- **Reduced maintenance costs.** Standardized components used.

Typical Applications

- **Machine Tool Industry**
- **Material Handling Systems**
- **Motion Control Applications**
- **Design for rough environments**

AS-Interface® Functionality

The AS-Interface® network is a single Master-Slave system with cyclic polling. Each network supports up to 62 slaves, each with up to 4 Inputs and 3 Outputs. Up to 248 Inputs and 186 Outputs can be connected on each rung. Intelligent slaves with their own integrated AS-i ASIC are assigned their own slave address. A single flat cable transmits both power and information to each slave. In addition to the data exchange, AS-Interface® networks provide a detailed diagnostic interface regarding the power behavior of the network.

Description

The BradControl™ analog module has 4 analog inputs or 4 analog outputs. The connection of the sensors / actuators is made by M12 connectors.

The current supply of the sensors can be made out of AS-Interface® or an external voltage supply (according to PELV). The module supply switches automatically to the external voltage as soon as it is connected. The analog sensors and the analog actuators are galvanic isolated from the AS-Interface®.

The conversion of the measured value and the data transmission via AS-Interface® occurs asynchrony according to AS-Interface® Profile 7.3. The resolution of the analog data is 16 Bit.

Summary:

- M12 connectors with 5 poles for the sensors /actuators
- Analog Input 4…20mA / 0…10 V
- Analog Output 0…20mA / 0…10 V
- AS-Interface® Profile 7.3

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BradControl™

AS-Interface® IP65 Modules

Active I/O Modules

Other AS-i Solutions

Other I/O Modules

- **IP67 Digital I/O Modules**

Gateways

- **Connect AS-Interface® to:**
  - **Profibus**
  - **DeviceNet**
  - **CANopen**
  - **Ethernet TCP/IP (Modbus TCP)**
  - **Serial (Modbus)**

PLC Scanners

- **Allen-Bradley ControlLogix®**
- **Allen-Bradley CompactLogix®**
- **Allen-Bradley SLC® 500**

Accessories

- **Power Supply**
- **Cable**

CONTROL SYNERGY
INDUSTRIAL AUTOMATION
Unit 3 / 1 Pippita Close
Beresfield NSW 2322
Ph: 02 49665211
Fax: 02 49664522
www.controlsynergy.com.au

Technical Data

Mechanical data	
Degree of protection:	IP65 according to IEC 60529
Ambient operating temperature:	-0° to + 70° C (-4º to +158ºF)
Mounting:	Din Rail
Electrical data	
→ Inputs	
Input:	4 … 20 mA or 0 … 10 V
Nominal Voltage:	24 V
Sensors power supply:	AS-Interface® / external auxiliary
Status indicator per channel:	LED yellow
Pin configuration M12:	1: +24 V, 2: Signal (+), 3: GND, 4: Signal (-), 5: Shield
→ Outputs	
Output:	0 … 20 mA or 0 … 10 V
Voltage range:	AS-Interface® / external auxiliary
Nominal voltage:	24 V
Status indicator per channel:	LED yellow
Pin configuration M12:	1: Signal (+), 2: not used, 3: Signal (-), 4: not used, 5: Shield
Electronics power supply	
Current consumption:	≤ 200 mA
Auxiliary supply 24 V:	LED green (AUX)
AS-interface voltage:	LED green (PWR)
Dimensions	
(LxWxH):	80 x 90 x 43 mm (3.15 x 3.54 x 1.69 inches)

Ordering Information

Part Number	Description
TAS-ANA-4IA	AS-Interface® M12 Analog module, 4 Input 4…20 mA, IP65
TAS-ANA-4IV	AS-Interface® M12 Analog module, 4 Input 0…10 V, IP65
TAS-ANA-4OA	AS-Interface® M12 Analog module, 4 Output 0…20 mA, IP65
TAS-ANA-4OV	AS-Interface® M12 Analog module, 4 Output 0…10 V, IP65

Related Products

Part Number	Description
TAS-4xx-CDU-00	I/O Module, IP67 Digital M12 *(xx = inputs / outputs configuration; contact Woodhead for details)*
TAS-PWR-4A	Power Supply, 230V/4A
VV4060	AS-i flat cable junction
8V4030	AS-i clamp with M12 female insert
8V4006-315	AS-i clamp with M12 field attachable straight
8V4007-315	AS-i clamp with M12 field attachable 90º
8V5030P03M010	AS-i clamp with cable straight, M12 straight
8V5031P03M010	AS-i clamp with cable straight, M12 90º
8V5032P03M010	AS-i clamp with cable 90º, M12 straight
8V5033P03M010	AS-i clamp with cable 90º, M12 90
84-2033	AS-i cable, Black (AUX Power)– TPE jacket
84-2034	AS-i cable, Yellow – TPE jacket
SST-ASI-xxx	AS-i Scanner for Allen-Bradley controllers
DRL-2ASI-xxx	Gateway, AS-i to other network

Woodhead
Empowering the Industrial Infrastructure

To contact us: www.woodhead.com

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North America: US + 1-800-225-7724 - Canada, +1 (905) 624-6518
Europe: France, +33 (0)1 64 30 91 36 – Germany, +49 7252/94 96-0 – Italy, +39 026-6400321
United Kingdom, +44 1495 356300
Asia: China, +86 21-5032-8080 – Singapore, +65 6261-6533 – Japan, +81 3-5791-4621

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